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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/631,384

07/31/2003

Werner Plass

5367-226RCE

9553

7590 05/29/2008  
Thomas Langer, Esq.  
Cohen, Pontani, Lieberman & Pavane  
551 Fifth Avenue, Suite 1210  
New York, NY 10176

EXAMINER

SEFER, AHMED N

ART UNIT

PAPER NUMBER

2826

MAIL DATE

DELIVERY MODE

05/29/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/631,384	PLASS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ahmed Sefer	2826	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed on 2/4/2008 has been entered and claims 10-15 have been cancelled.

### ***Allowable Subject Matter***

2. The indicated allowability of claim 1 is withdrawn in view of the newly discovered reference(s) to Ju et al. ("Ju") USPN 6,584,136 and Liao et al. ("Liao") USPN 4,990,465. Rejections based on the newly cited reference(s) follow.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Liao.

Liao discloses in figs. 7a-7d a surface emitting semiconductor laser chip or VCSEL (as in claim 6), comprising: a semiconductor body having, at least partly, a crystal structure with principal crystal directions extending along a lateral direction of the a radiation exit face (col. 10, lines 20-28), and side faces 104/104' laterally delimiting said semiconductor body, at least one of said side faces disposed obliquely with respect to the principal crystal directions and perpendicularly with respect to a radiation exit face (col. 9, lines 60-68).

Re 2, Liao discloses semiconductor body having rectangular cross sections disposed parallel to said radiation exit face.

Re claims 3 and 7, Liao discloses a principal crystal directions including a given direction running parallel to said radiation exit face (col. 3, lines 55-68), and at least one of said side faces forms an angle, within the range recited in the claim, with said given direction (col. 9, lines 61-68).

Re claim 4, Liao discloses a semiconductor body containing a substrate having, at least partly, a crystal structure.

As for claims 5 and 8, Liao discloses semiconductor body containing a III-V compound semiconductor or GaAs (as in claim 8).

Re claim 9, Liao discloses the at least one principal crystal direction being a [1 0 0] direction (col. 6, lines 38-47).

5. Claims 1, 2, 4, 5 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Ju.

Ju discloses in fig. 1 a surface emitting semiconductor laser chip or VCSEL (as in claim 6), comprising: a semiconductor body having, at least partly, a crystal structure with principal crystal directions extending along a lateral direction of the a radiation exit face, and side faces 11A/11B laterally delimiting said semiconductor body, at least one of said side faces disposed obliquely with respect to the principal crystal directions and perpendicularly with respect to a radiation exit face (col. 3, lines 20-32).

Re 2, Ju discloses semiconductor body having rectangular cross sections disposed parallel to said radiation exit face.

Re claim 4, Ju discloses a semiconductor body containing a substrate having, at least partly, a crystal structure.

Re claims 5 and 8, Ju discloses semiconductor body containing a III-V compound semiconductor or GaAs (as in claim 8).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ahmed Sefer whose telephone number is (571)272-1921.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sue Purvis can be reached on (571) 272-1236.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. Sefer/  
Primary Examiner  
Art Unit 2826